

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/797,103

**AMENDMENTS TO THE DRAWINGS**

Applicants are enclosing herewith one (1) sheet of replacement drawings, which includes FIG. 1. FIG. 1 has been amended to include the reference numerals 1a and 10a. The submitted drawing is intended to replace FIG. 1 originally filed on March 11, 2004, and is believed to obviate the Examiner's objection in the office action mailed December 29, 2004.

Attachment: One Replacement Sheet

**REMARKS**

Claims 1-8 are all the claims pending in the application. Claims 1-3 and 6 presently stand rejected.

Claims 4, 5, 7 and 8 are withdrawn from consideration as being drawn to a non-elected invention. Applicant respectfully requests that the Examiner allow these dependent claims should the Examiner allow generic, linking claim 1.

As an initial matter, Applicant has made a clarifying amendment to dependent claim. In addition, Applicant has amended para. [0033] of the original specification so that the description of the exemplary embodiment of the frustum of a cone is consistent with para. [0028] and Fig. 2.

**Specification and Drawing Objections**

The specification is objected to because of a typographical error. In response, Applicant has changed the term “electromagnetic oil” to “electromagnetic coil.”

The drawings are objected to because they do not include the following reference signs that are mentioned in the description: 1a and 10a in paragraphs [0020] and [0023]. Applicant has added these reference numerals to replacement Fig. 1.

In view of these amendments, Applicant respectfully requests that the Examiner withdraw the objections to the specification and drawings.

**Claim Rejections Under 35 U.S.C. § 112**

Claim 6 is rejected under 35 U.S.C. § 112, second paragraph. Specifically, the Examiner alleges that the formulas in claim 6 appear to be directed to surface *areas*, and not cross sections.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/797,103

In response, Applicant has clarified the language of claim 6, including changed the term “cross-section” to –area--. Applicant respectfully requests that the Examiner withdraw the §112 rejection in view of these amendments.

**Claim Rejections Under 35 U.S.C. § 102**

Claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kiwior (4,057,190). Claims 1-3 are rejected under 35 U.S.C. § 102(e) as being anticipated by Peterson, Jr. (6,769,625).

***Claims 1-3***

With respect to independent claim 1, Applicant has amended the claim to recite an inlet having a diameter that is slightly greater than the diameter of a flat bottom face of the valve body, the flat bottom face being positioned within the inlet when the valve body is closed. This amendment is fully supported in the original specification at least by the exemplary embodiment shown in Fig. 2 and discussed at para. [0032] of the original specification.

Applicant respectfully requests that the Examiner withdraw the rejection of independent claim 1 at least because of neither Kiwior nor Peterson, Jr. teaches or suggests the claimed valve having an inlet having a diameter that is slightly greater than the diameter of a flat bottom face of the valve body, the flat bottom face being positioned within the inlet when the valve body is closed.

For example, although Kiwior discloses a fuel injection valve having a ball valve 148, a ball valve seat 86, and an injection port 76, Kiwior does not disclose any structure that could

correspond the recited an inlet having a diameter that is slightly greater than the diameter of a flat bottom face of the valve body. *See* Kiwior at Fig. 4.

Moreover, although Peterson, Jr. also discloses a fuel injection valve having a ball valve 126, a valve seat surface 134a, and an injection port 134b, Peterson, Jr. does not disclose any structure that could correspond the recited an inlet having a diameter that is slightly greater than the diameter of a flat bottom face of the valve body. *See* Peterson, Jr. at Figs. 2A & 2B.

Accordingly, Applicant respectfully requests that the Examiner withdraw the rejection of independent claim 1. Applicant also respectfully requests that the Examiner withdraw the rejection of dependent claims 2 and 3 at least because of their dependency from claim 1.

#### **New Claims**

New independent claims 9 and 10 have been added in order to provide additional claim coverage.

New claim 9 recites a valve having a valve body and a valve seat member. Applicant respectfully submits that new claim 9 is allowable over the applied reference at least because the applied references do not teach or suggest the claimed valve having a valve body including a flat bottom face; and a valve seat member including an inlet having a having a diameter that is slightly greater than the diameter of the flat bottom face, wherein said flat bottom face is positioned within said inlet when said fuel injection valve is in a closed state. As discussed above, neither Kiwior nor Peterson, Jr. discloses any structure that could correspond the recited inlet having a diameter that is slightly greater than the diameter of a flat bottom face of the valve body.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 10/797,103

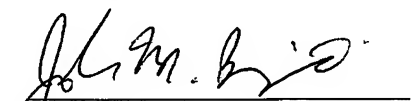
New claim 10 includes the recitations of original claims 1+2+3+6, with claims 2 and 6 amended as discussed above. Applicant respectfully submits that new claim 9 is allowable over the applied reference at least because the applied references do not teach or suggest the claimed valve having the features of modified, original dependent claim 6, which was not rejected in view of any prior art.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
John M. Bird  
Registration No. John M. Bird

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: March 29, 2005

Attorney Docket No.: Q79127